# Public Workshop Proposed Amended Rules to Implement Revised OEHHA Guidelines

April 1, and April 2, 2015

(Updated April 1, 2015)

# SCAQMD's Approach to Reducing Public Risk from Air Toxics

• #1 Objective: Protect public health



Multifaceted Regulatory
 Approach
 Permitting

Source-Specific Rules

Comprehensive



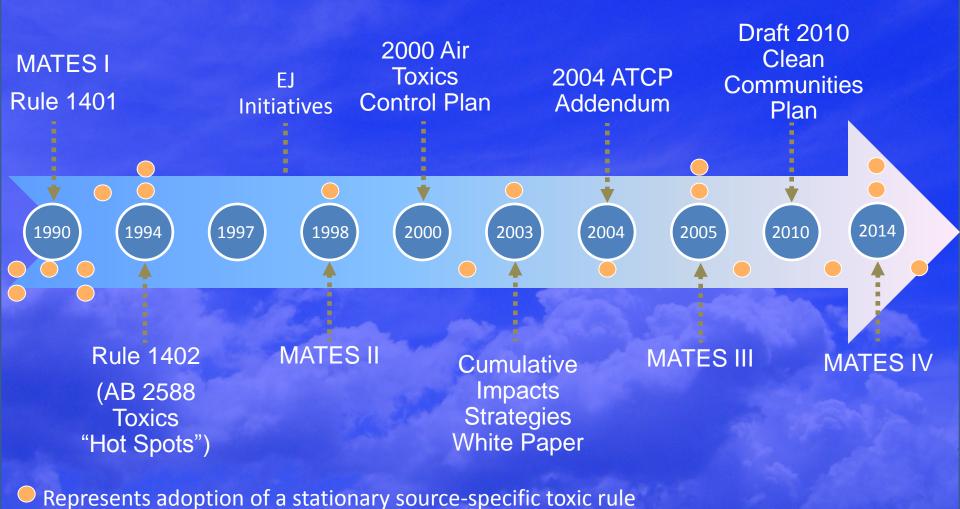
2588

AB

Environmental
Justice
Initiatives

Technology and Science Based

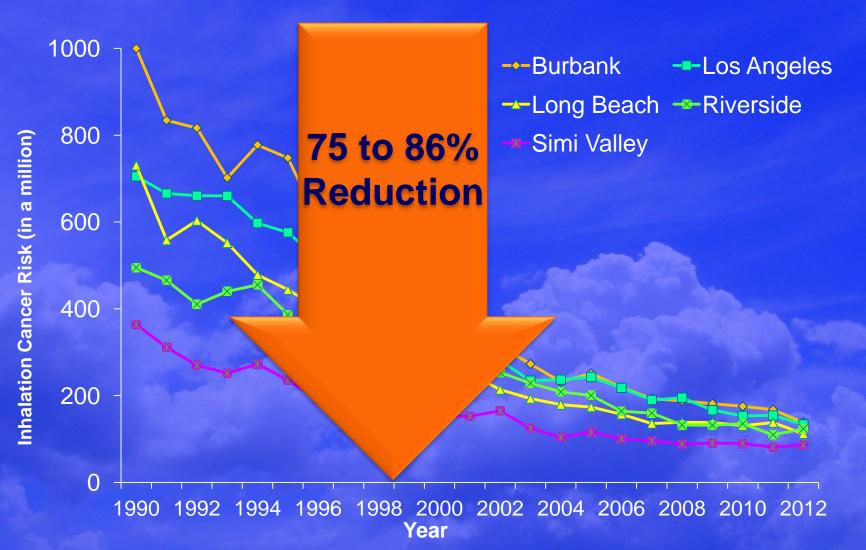
# SCAQMD's Air Toxics Program



## "Umbrella" Toxics Rules

- Rule 1401 Toxic requirements for new and modified permitted sources
- Rule 1401.1 Toxic requirements for new and modified permitted sources near schools
- Rule 1402 Toxic requirements for existing facilities (AB2588 "Hot Spots")
- Rule 212 Noticing for new and modified permitted sources

# Trends in Air Toxic Cancer Risk Since 1990 (Excludes diesel PM)



# Quantifying the Potential Health Effects of Air Toxics

- Toxic Air Contaminants (TACs) have
  - Various potencies
  - Various health effects
  - Various pathways and human sensitivities
- Must consider the amount and duration of exposure
- Assumptions are often purposefully conservative
   —health protective
- Uncertainty regarding synergistic effects of multiple air toxics

# **Health Risk Assessments** Can Account for Complexity



Cancer Response

### **Hazard Identification**

Identifies health problems and the potency of toxic air contaminants.



### **Dose-Response**

Accounts for the increased health effects with increased dose. For each unit of increase in exposure (dose), there is an increase in cancer response



Risk Assessmen

Health

### **Exposure**

Estimates breathing rates and the amount time spans a person is exposed to toxic air contaminants.



### **Potential** Health Risk **Estimate**

Probability of getting cancer due to a given toxic exposure\*



### Sensitivity

Accounts for the susceptibility to air toxics because of factors such as age.





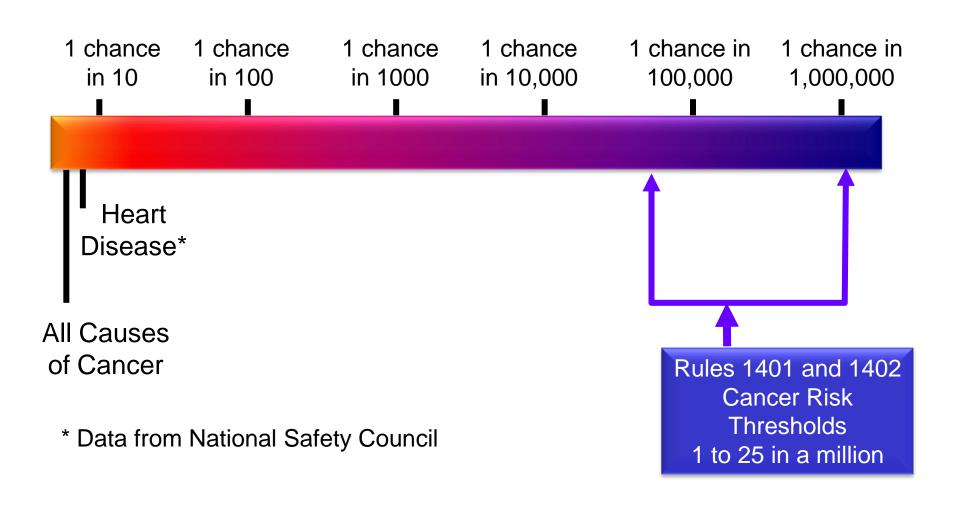


\*Non-cancer health effects measured in terms of Reference Exposure Levels

### **How are Health Risks Measured?**

- Health risks are a measure of the <u>chance</u> or <u>odds</u> that a person will experience a health effect
- Should not be confused with the actual occurrence or certainty that a disease will occur
- Air quality health risks are involuntary—one must breathe
  - Voluntary risks are avoidable i.e. smoking
- Health risks are expressed as a probability
  - The probability can be expressed as a fraction
  - For example 101,000,000
  - A probability of 10-in-one million indicates that there are 10 chances in a million (0.001%) a person will experience a health effect

# SCAQMD Health Risk Thresholds-Relative Perspective



# Who Establishes the Health Risk Assessment Guidance?

- The California Office of Environmental Health Hazard Assessment (OEHHA) is responsible for developing and updating risk assessment guidance under the Air Toxics Hot Spots program
- State law requires that health risk assessments required under Toxics Hot Spots Program be prepared in accordance with OEHHA Guidelines (Health and Safety Code §44360(b)(2))
- OEHHA's health risk guidelines are used by all air districts statewide

# OEHHA's Revised Health Risk Guidelines

- The Children's Environmental Health Protection Act of 1999 (SB25) required susceptibility of infants and children be considered in assessing the health risks associated with air toxics
- On March 6, 2015 OEHHA approved a revision to the Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA Revised Guidelines)
  - Incorporated new studies on childhood sensitivities
  - Incorporated new data on exposure (e.g. breathing rate and time at home)

# OEHHA Revised Risk Guidelines Impact On Estimating Cancer Risk







Residential / Sensitive Receptor Cancer Risk (Increased ~ 3x\*)



Worker Receptor
Cancer Risk
(Slight Change)

### No Change

Quantification of Facility Emissions

(<u>Toxic Emissions</u> <u>have not</u> <u>increased</u>)

### Revised

Methodology for Estimating Cancer Risk (Childhood sensitivities and breathing rates)

\* Preliminary estimate/subject to change. Up to ~6X for multi-pathway

# Affected SCAQMD Programs

### **Permitting**

- Rule 1401 New and Modified Permitted Sources
- Rule 1401.1 New and Relocated Facilities Near Schools

### **AB2588**

- AB2588 Industry-Wide Facilities
- AB2588 Core Facilities
- Rule 1402 Control of Toxic Air Contaminants from Existing Sources

Revised OEHHA
Guidance

### **Public Noticing**

- Rule 212 New or Modified Permits
- AB2588 Facilities

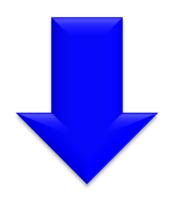
### **CEQA**

- Air Toxics Analysis for
  - Construction Phases
  - Operational Phases

# SCAQMD Regulatory Limits Ensures Public Health Protection



- No permit issued for new and modified equipment, unless:
  - <10 in a million with TBACT\* (R1401)</li>
  - <1 in a million without TBACT\* (R1401)</li>
  - <1 in a million near a school regardless of TBACT (R1401.1)



 Existing facilities AB2588 must reduce facility-wide risk to under 25-in a million (R1402)

<sup>\*</sup> TBACT is Toxics Best Available Control Technology

# How Will New SCAQMD Permits be Affected?

- SCAQMD staff reviewed past five years of permitted data (2009 to 2014)
- Majority of permits issued well below Rule 1401 permitting risk thresholds
- Most source types will not require additional controls to meet current thresholds
- Additional pollution controls may be needed for <u>small number</u> of new permits
- Special provisions for two source categories

# **Permitting Approach**

- Implementation of Revised OEHHA Guidelines will be forward looking
  - Applies to permit applications deemed complete 30 days after rule adoption
- Rule 212 notifications will continue for new and modified sources
- SCAQMD permitting approach for toxics uses a 4
   Tier screening approach – each screening level
   incorporates more specificity and analysis
  - Currently developing screening criteria that are more equipment specific to streamline implementation



# Proposed Amended Rule 1401 (PAR 1401)

- Rule 1401 currently references SCAQMD Risk Assessment Procedures for Rules 1401 and 212, Version 7.0 (July 1, 2005)
  - Amend to reference and incorporate
     Revised OEHHA Guidelines Version 8.0
- PAR1401 will require use of new Procedures (Version 8.0) with two exceptions



# PAR 1401 (Continued)

- PAR1401 allows new and modified spray booths and retail gas stations to use previous procedures "Version 7.0"
- Spray booths
  - R1401 limits difficult for some new spray booths
  - ~300 permits annually
  - SCAQMD staff will initiate toxics rulemaking to limit emissions from spray booths to the extent feasible
- Retail gas stations
  - Reviewing new emission factors assessing impact
  - Return to the board as quickly as practicable with a proposed approach

## **Other Proposed Amendments**

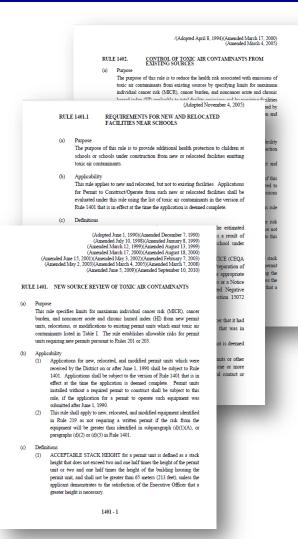
- Rules 1401, 1401.1, 1402, and 212 include exposure duration references based on 1993 OEHHA Guidelines
- Reference SCAQMD guidelines which are based on the Revised OEHHA Guidelines for exposure:

Residential: 30 years instead of

70 years

Worker: 25 years instead of

40 years



# **AB2588 Background**

- About 400 "Core" AB2588 facilities
- Hot Spots Program is continuous
  - Core facilities submit reports every four years more detailed toxics inventory of ~177 Air Toxics
  - Facilities are prioritized based on quadrennial reports
  - Prioritization identifies facilities with potentially a high risk
- According to state law (H&SC §44360(b)(2)), SCAQMD must use Revised OEHHA Guidelines for HRAs under the Hot Spots Program
- Dry Cleaners addressed through R1421 and State ATCM, no new actions

## **AB2588**

- All HRAs not yet approved will be required to use Revised OEHHA Guidelines
- Implementation of Revised OEHHA Guidelines would occur through normal quadrennial prioritization and review
- An estimated 22 facilities will require additional risk reduction measures
  - Most large facilities
  - May choose between process changes, add-on controls, throughput limits or a combination of measures

# AB2588 (Continued)

- Other actions taken to implement Revised OEHHA Guidelines:
  - Draft Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act
  - Draft Prioritization Procedures for AB 2588

# Socioeconomic Impacts

- PAR 1401: 28 new or modified permits with total annual compliance costs of \$239,000 - \$255,000
- PAR 1402: 22 AB2588 facilities with total annual compliance costs of \$1.3 million - \$1.4 million
- PAR 212: 28 public notices with a cost of \$1,700 each, annually for new emergency diesel internal combustion engines
- 10 to 90 annual jobs forgone between 2015 and 2024 with 4-percent real interest rate (less than 0.001 percent of the total employment in the four-county region)

# California Environmental Quality Act

- The Draft Environmental Assessment was released to the public on March 24, 2015
- No significant impacts
- The 30-day public review and comment will end on April 22, 2015
- The Final Environmental Assessment will include comments and responses to comments

# Regional Public Workshops

March 31, 2015 – 10:00 a.m.

Norton Regional Events Center

Auditorium

1601 E. 3<sup>rd</sup> Street

San Bernardino, CA 92408

March 31, 2015 – 2:00 p.m. Louis Robidoux Public Library Community Room 5840 Mission Boulevard Riverside, CA 92509

April 1, 2015 – 10:00 a.m. SCAQMD Auditorium 21865 Copley Drive Diamond Bar, CA 9176

April 2, 2015 – 10:00 a.m.
Buena Park Community Center
Ballroom
6688 Beach Boulevard

Buena Park, CA 90621

April 2, 2015 – 4:00 p.m.
Wilmington Senior Citizen Center
Community Room
1371 Eubank Avenue
Wilmington, CA 90744

## Schedule

Mar 31-Apr 2 Public Workshops and Outreach

April 3, 2015 Set Hearing for Proposed

**Amended Rules** 

April 17, 2015 Public Comment Ends

(Encourage early comments)

May 1, 2015 Adoption Hearing for Proposed

**Amended Rules** 

## **SCAQMD Contacts**

Permitting Guidelines

Jillian Wong, jwong@aqmd.gov (909) 396-3176

AB2588 Guidelines and Prioritization Procedures

lan MacMillan, imacmillan@aqmd.gov (909) 396-3324

Victoria Moaveni, vmoaveni@aqmd.gov (909) 396-2455

Rule Development

Eugene Kang, ekang@aqmd.gov (909) 396-3524

Michael Morris, mmorris@aqmd.gov (909) 396-3282

**General Questions** 

Susan Nakamura, snakamura@aqmd.gov (909) 396-3105